REGIONAL ECOSYSTEM OFFICE

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MEMORANDUM

DATE: September 26, 2013

TO: Dave Myers, Forest Supervisor, Shasta-Trinity National Forest

FROM: Michael Hampton, REO Representative to the REIC

SUBJECT: Regional Ecosystem Office Review of the Harris Mountain Vegetation Management Project, Shasta-Trinity National Forest

Summary: The Regional Ecosystem Office (REO) interagency Late Successional Reserve (LSR) Work Group has concluded its review of activities within the Harris Mountain Late Successional Reserve (RC-359) that are proposed as part of the Harris Mountain Vegetation Management Project on the Shasta-Trinity National Forest. The Forest proposes to treat 296 acres or 18 percent of the Harris Mountain LSR using a variety of treatment prescriptions to achieve ecological objectives that are consistent with the Shasta-Trinity Forest-Wide Late Successional Reserve Assessment (LSRA). The REO, based upon review by the LSR Work Group, concurs with the Forest in its finding of consistency with the Standards and Guidelines (S&G) under the Northwest Forest Plan (NWFP).

Basis for the Review: The Forests proposes Silviculture activities to accelerate late successional characteristics, risk reduction through fuels reduction treatments, and aspen and oak restoration within the Harris Mountain LSR. These activities in LSRs are subject to REO review under the NWFP S&Gs (C 12-15). As required by the NWFP S&Gs (C-11), the Forest prepared a Late-Successional Reserve Assessment (LSRA). The Shasta-Trinity National Forest completed the Shasta-Trinity Forest-wide LSRA in 1999 and amended the assessment in 2009. The LSRA was reviewed by the REO and found consistent under the NWFP S&Gs (C-11). Some of the proposed activities in the Harris Mountain LSR were not exempted from REO review under the LSRA and were thus brought to the LSR Work Group for review.

Background and Project Description: The Forest proposes activities in stands with average ages from 41 to 64-years-old. Stand stocking currently ranges from medium to high density with Stand Density Indexes from 221 to 363. Insect and disease damage is widespread within the certain stands in the LSR (such as those proposed for treatment) and poses a potential risk to healthy stands within and outside of the LSR. Several stands are dominated by over-mature lodgepole pine which have high levels of mortality and are being replaced by regenerating white fir in the absence of fire.

The project proposes to treat approximately 400 acres of the 2224 acres within the Harris Mountain LSR. The treatments consist of thinning to accelerate late successional conditions, risk reduction, aspen and oak release. Most of the treatments are within the treatment criteria

contained in the Shasta-Trinity Forest-wide LSRA. The proposed treatments will leave 10-15 percent of treated stands untreated, will reserve the largest trees in the treated stands from cutting, will preserve snags and down wood, and will remove the most diseased trees that pose the most risk to adjacent stands from the treated stands.

Treatments are expected to produce variable short-term reductions in canopy cover and layering, shrub cover, snags, down logs and coarse wood. However, the range of conditions that would provide utility for late successional associated species (e.g. foraging, dispersal) will be retained and enhanced post-treatment. For example, in foraging habitat for NSOs, basal areas of 80-180 sqft/acre, conifer and hardwood species diversity, large trees and snags, down wood, 40-60 percent+ canopy cover, understory layering and vertical and horizontal heterogeneity will be well within the range of stand conditions frequently used by owls. Similarly, the project design and resource protection measures retain the largest trees; 40 to 60 percent (or more) canopy cover; untreated areas with large decadent trees and large down logs; large snags that may be used for denning and/or resting furbearers, nesting northern goshawk and roosting bats; large and small down wood that contributes to subnivean areas for fisher and marten, plucking posts for northern goshawk and prey species habitat; and shrub and ground cover for prey species.

Two of the risk reduction treatments required review REO because they met the intent of the LSRA, but not the specific treatment criteria as described in the LSRA. These are the "Non-thinning portion of Risk Reduction Treatment" and "Hazard Reduction Treatment".

Risk reduction treatments will occur on 178 acres. The "non-thinning" treatment will be applied outside of healthy portions of the stand, trees with western gall rust, dwarf mistletoe, or that show evidence of bark beetle attack (primarily lodgepole pine) will be removed to reduce the disease vectors in the stand, current/future fuel loads, large scale mortality risk due to the ongoing spread of disease, future fire risk or large scale insect outbreaks. Some resultant openings greater than 1 acre will be evaluated following treatment for replanting with a mix of species.

About 63 acres will receive the "Hazard Reduction Treatment". This treatment will remove the diseased and dying trees 4 inches in diameter and greater to an approximate basal area average of 10 to 60 sqft/ac while retaining healthy ponderosa pine and white fir. The removal of diseased trees would also include stressed trees that can become vectors for insect attack. Additionally, at least 15 percent of each stand will be retained. Diseased trees less than 4 inches in diameter will be masticated. Openings will be planted with ponderosa pine and sugar pine, while white fir and lodgepole pine from (healthy) natural regeneration will also be a stand component. Fuels treatments include machine piling/burning and/or mastication.

This treatment would reduce the number of disease vectors available for infection of additional healthy trees. Removing dying trees and the diseased overstory trees would remove the disease vectors, aiding in breaking the disease cycle, allowing for a healthy, more sustainable forest stand to establish. Given the low amount of late successional habitat within the LSR, growing stands that are able to persist and grow into late successional conditions are an important goal. Reducing the risk of disease spread to adjacent stands is also desired. It would also reduce tree mortality and subsequent deadfall which would have added to surface fuel loadings. The treatment would reduce fire behavior potential that could result in stand damage and the threat of fire damage to adjacent stands, and stands on Harris Mountain.

Review of the Project: The LSR Work Group met and discussed the proposed treatments on August 27, 2013 and September 12, 2013. The LSR Work Group received the revised project proposal on September 19, 2013. The interagency LSR Work Group review of the revised proposal concluded that the treatment in the LSR meets the objectives and S&G for managing LSRs. This conclusion was reached in part for the following reasons:

- Most (over 80%) the LSR will not be treated. This includes Harris Mountain where the higher quality habitat for northern spotted owl and other late successional associated species occurs (e.g. nesting/denning). Pockets of mortality, whether snag patches or substantial deadfall, occur and would be retained in these untreated areas of the LSR. Density, vertical structure, etc., will also be retained in these untreated areas.

- Project actions will reduce risk, result in greater long-term development, persistence, and maintenance of habitat and will not prevent the LSR from playing its role in east-west connectivity.

If you have questions regarding this review, please contact Kim Mellen-McLean at 503-808-2677.

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